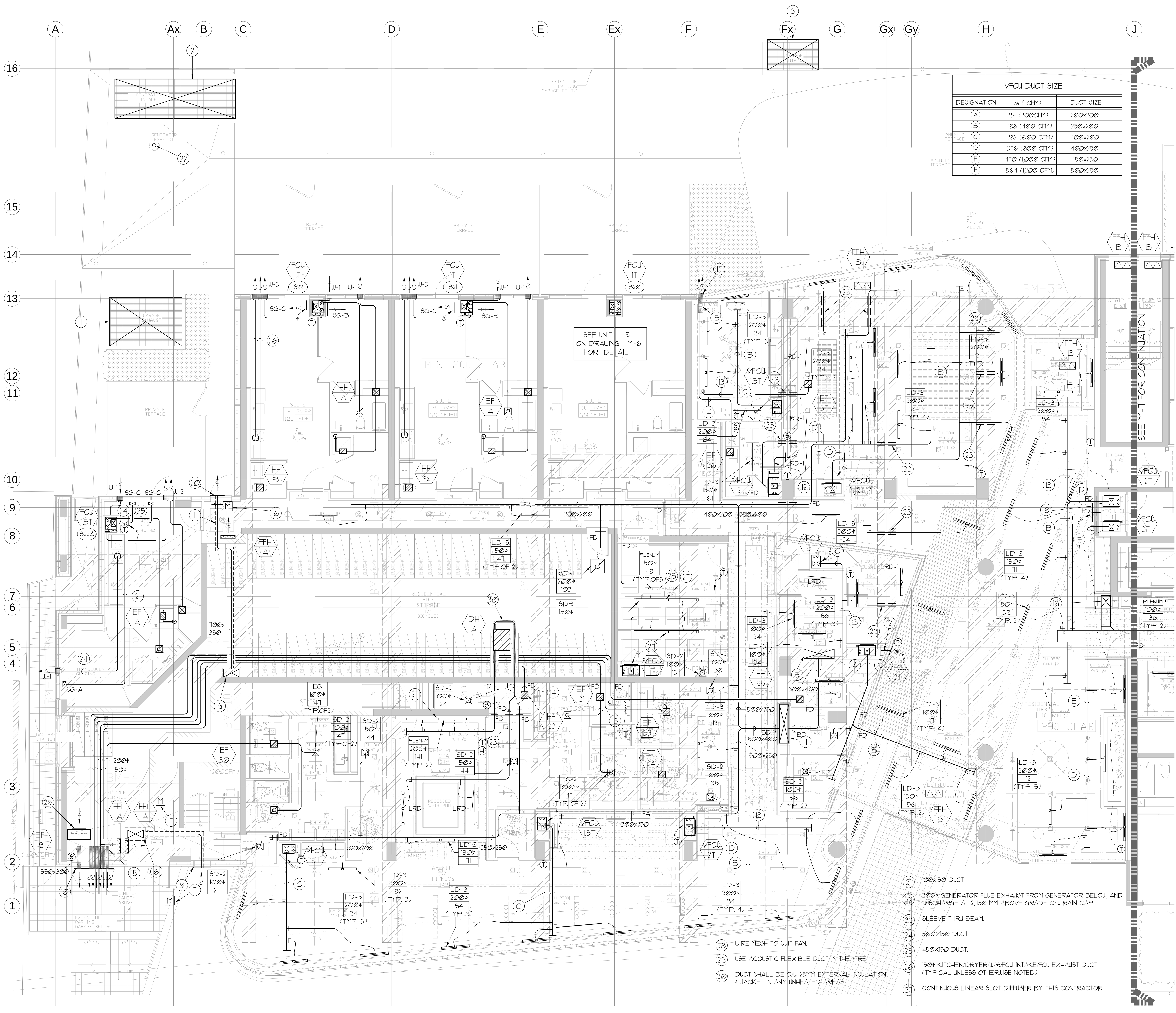


Drawn by: G.S. (G.S.)/E.P. (E.P.)/M-6 (M-6) - Mechanical/HVAC - 1/20/2014 - 4:23pm
Project: 2014 - 4:23pm
Revision: 1/20/2014 - 4:23pm



VFCU DUCT SIZE		
DESIGNATION	L/S (CFM)	DUCT SIZE
(A)	94 (200 CFM)	200x200
(B)	188 (400 CFM)	250x200
(C)	282 (600 CFM)	400x200
(D)	376 (800 CFM)	400x250
(E)	470 (1000 CFM)	450x250
(F)	564 (1200 CFM)	500x250

REFER TO DUG M-9 FOR ACOUSTIC NOTES

GENERAL NOTES:

- CONTRACTOR SHALL CO-ORDINATE ARCHITECTURAL, STRUCTURAL, LIGHTING, HVAC, SPRINKLER DRAWINGS TO AVOID AREAS OF CONFLICT AND TO MAINTAIN CEILING HEIGHTS.
- CONTRACTOR SHALL REPORT ALL DISCREPANCIES AND AREA OF CONFLICTS TO THE ENGINEER PRIOR TO WORK BEGINS.
- PROVIDE EXPANSION CHAMBERS FOR ALL KITCHEN SINKS.
- SEE INSTALLATION DETAILS DRAWING FOR WASHER DRYER, H4C WATER, SANITARY CONNECTION DETAILS.
- SUPPLY AND INSTALL COMPLETE DOMESTIC HOT AND COLD WATER LINES, SANITARY AND VENT LINES TO EACH FIXTURE/EQUIPMENT INCLUDING WATER CLOSETS, LAVATORIES, BATHS, SHOWERS, KITCHEN SINK, WASHING MACHINES, DISHWASHERS, AND FLOOR DRAINS, KITCHEN SINK, LAVATORIES, WATER CLOSETS AND WASHING MACHINE TO BE C/W LOCALIZED SHUT-OFF VALVES.
- ALL VENT PIPE INSTALLATION TO COMPLY WITH PLUMBING CODES.
- FOR D.H4C, W. RISER SIZES, REFER TO RISER DIAGRAM
- FIRE DAMPERS ARE REQUIRED TO BE LISTED AND ARE TO HAVE FIRE PROTECTION RATING OF THE PENETRATED FIRE SEPARATION.
- THE PIPING PENETRATING THE VARIOUS FIRE SEPARATION IS REQUIRED TO BE FIRESTOPPED WITH A LISTED FIRESTOPPING MATERIAL IN ACCORDANCE WITH OBC ARTICLE 3.9.31
- THE FIRE HOSE CABINET THAT ARE RECESSED INTO THE EXIT STAIR SHAFTS ARE REQUIRED TO BE SEPARATED FROM THE EXIT STAIR BY A 2 HR FIRE SEPARATION.
- NO FLEXIBLE DUCT SHALL BE USED FOR ANY IN-SUITE DUCTWORK.
- PROVIDE 25MM EXTERNAL INSULATION TO ENTIRE FRESH AIR DUCT FROM EXTERIOR WALL TO EXH. FAN COIL UNIT.
- DRYER EXHAUST DUCT SHALL BE SMOOTH AND CORROSION-RESISTANT MATERIAL (FLEXIBLE CONNECTION IS NOT ACCEPTABLE).

CLEAR FLOOR TO UNDERSLAB = 4050mm
CLEAR PRODUCT = 3000mm
COMPLETE DROP CEILING = 1000mm FOR DUCT/PIPES
ROOF DRAINS + TERRACE DRAINS FROM 2/F

- NOTES:
- 3100x2000 (62 M², 68 FT²) EXHAUST AIR SHAFT FOR P-1 & P-2 LEVEL C/W GRATE BY OTHERS.
 - 5200x1700 (88.4 M², 95 FT²) AIR SHAFT FOR GENERATOR INTAKE & EXHAUST C/W GRATE BY OTHERS.
 - 2250x1300 (2.93 M², 315 FT²) FRESH AIR INTAKE SHAFT FOR P-2 LEVEL C/W GRATE BY OTHERS.
 - 1650x400 F/A DUCT FROM BELOW C/W FIRE DAMPER AT SLAB.
 - 1300x400 F/A DUCT UP TO SOUTH SHAFT A C/W FIRE DAMPER AT SLAB.
 - 100x350 STAIR PRESSURIZATION DUCT DOWN C/W 2HR FIRE RATED ENCLOSURE, ENCLOSURE BY OTHERS.
 - MOTORIZED DOOR TO BE CONNECTED TO FIRE ALARM SYSTEM BY DIV.16.
 - 1000x150 WEATHERPROOF INTAKE LOUVER C/W BIRDSCREEN.
 - 100x350 STAIR RELIEF DUCT FROM BELOW C/W 2HR FIRE RATED ENCLOSURE, ENCLOSURE BY OTHERS.
 - 600x600 WEATHERPROOF EXHAUST LOUVER C/W BIRDSCREEN.
 - 2HR FIRE RATED ENCLOSURE BY OTHERS.
 - 400x300 RETURN AIR DUCT ABOVE CEILING C/W ACOUSTIC INSULATION AND WIRE MESH AT OPEN ENDS.
 - 200x EXHAUST AIR DUCT. (PROVIDE INSULATION 16M AWAY FROM EXTERIOR WALL)
 - 150x EXHAUST AIR DUCT.
 - 25MM EXTERNAL INSULATION 16M FROM EXTERIOR WALL. (PROVIDE INSULATION 16M AWAY FROM EXTERIOR WALL)
 - MOTORIZED DAMPER BY DIV.16 TO BE CONNECTED TO FIRE ALARM SYSTEM BY DIV.16.
 - 400x200 WEATHERPROOF EXHAUST LOUVER C/W BIRDSCREEN.
 - 800x300 RETURN AIR DUCT ABOVE CEILING C/W ACOUSTIC INSULATION AND WIRE MESH AT OPEN ENDS.
 - 500x400 F/A DUCT UP TO SOUTH SHAFT B C/W FIRE DAMPER AT SLAB.
 - 1000x400 WEATHERPROOF EXHAUST LOUVER C/W BIRDSCREEN.

- 100x150 DUCT.
- 300x GENERATOR FLUE EXHAUST FROM GENERATOR BELOW, AND DISCHARGE AT 2.750 M1 ABOVE GRADE C/W RAIN CAP.
- SLEEVE THRU BEAM.
- 500x150 DUCT.
- 450x150 DUCT.
- 150x KITCHEN/DRYER/W/C/W/FCU INTAKE/FCU EXHAUST DUCT. (TYPICAL UNLESS OTHERWISE NOTED)
- CONTINUOUS LINEAR SLOT DIFFUSER BY THIS CONTRACTOR
- WIRE MESH TO SUIT FAN.
- USE ACOUSTIC FLEXIBLE DUCT IN THEATRE
- DUCT SHALL BE C/W 25MM EXTERNAL INSULATION & JACKET IN ANY UNHEATED AREAS.

LEGEND

SYMBOL	DESCRIPTION	
[Symbol]	SUPPLY AIR DIFFUSER	
[Symbol]	SUPPLY AIR TROOPER	
[Symbol]	LINEAR SUPPLY DIFFUSER	
[Symbol]	FAN INTAKE	
[Symbol]	RETURN AIR GRILLE	
[Symbol]	EXHAUST AIR GRILLE	
[Symbol]	SUPPLY DUCT UP	
[Symbol]	RETURN DUCT UP	
[Symbol]	RETURN DUCT DOWN	
[Symbol]	EXHAUST DUCT DOWN	
[Symbol]	FIRE DAMPER	
[Symbol]	BALANCING DAMPER	
[Symbol]	MOTORIZED DAMPER	
[Symbol]	MOTORIZED FIRE DAMPER	
[Symbol]	BACKDRAFT DAMPER	
[Symbol]	OPPOSED BLADE VOLUME CONTROL DAMPER	
[Symbol]	TURNING VANES	
[Symbol]	FLEXIBLE CONNECTION	
[Symbol]	ACOUSTIC INSULATION	
[Symbol]	TYPE OF EQUIPMENT	
[Symbol]	TYPE OF DIFFUSER OR GRILLE	
[Symbol]	SMALL SIZE OR DIFFUSER RACK SIZE	
[Symbol]	AMPLIFY (CFM OR L/S)	
[Symbol]	STARTER (3 PHASE / 1 PHASE)	
[Symbol]	FAN AUTO / IN-SUITE EXH. FAN AUTO	
[Symbol]	CO SENSOR	
[Symbol]	GAS LINE	
[Symbol]	GAS PETER	
[Symbol]	GAS STOP	
[Symbol]	PRESSURE REDUCING VALVE	
[Symbol]	SANITARY ABOVE GRADE	
[Symbol]	SANITARY BELOW GRADE	
[Symbol]	STORY ABOVE GRADE	
[Symbol]	STORY BELOW GRADE	
[Symbol]	DOMESTIC COLD WATER	
[Symbol]	DOMESTIC HOT WATER	
[Symbol]	DOMESTIC HOT WATER RECIRCULATION	
[Symbol]	SANITARY VENT	
[Symbol]	WATER PETER	
[Symbol]	FLOOR DRAIN	
[Symbol]	ROOF DRAIN	
[Symbol]	SLAB DRAIN	
[Symbol]	AREA DRAIN	
[Symbol]	BLIND BILVEL AREA DRAIN	
[Symbol]	CATCH BASIN	
[Symbol]	SANITARY TRAMP	
[Symbol]	ELBOW UP	
[Symbol]	ELBOW DOWN	
[Symbol]	WALL CLEANOUT	
[Symbol]	FLOOR CLEANOUT	
[Symbol]	HOSE BIBB	
[Symbol]	NON-FREEZE HOSE BIBB	
[Symbol]	GATE VALVE	
[Symbol]	SHOCK VALVE	
[Symbol]	IS	GATE VALVE
[Symbol]	IS	BUTTERFLY VALVE
[Symbol]	IS	PRESSURE REDUCING VALVE
[Symbol]	IS	CHECK VALVE
[Symbol]	IS	CAP
[Symbol]	IS	COMPRESSED AIR OUTLET
[Symbol]	IS	BACKUP PREVENTER
[Symbol]	IS	CIRCUIT BALANCING VALVE
[Symbol]	IS	DIAPHRAGM NO. OF PIPES
[Symbol]	IS	TEMPERATURE SENSOR
[Symbol]	IS	THERMISTOR
[Symbol]	IS	2-WAY MODULATING VALVE
[Symbol]	IS	3-WAY MODULATING VALVE
[Symbol]	IS	C/W 1/2" BUSHING 1/2" PLUGS
[Symbol]	IS	FLOOR ELEVATION ABOVE LEVEL
[Symbol]	IS	SEASON FLOOR TO US (EAST)

REVISIONS

NO.	DATE	DESCRIPTION
1	1/20/2014	ISSUED FOR PERMIT
2	1/20/2014	RE-BASED FOR PERMIT
3	1/20/2014	ISSUED FOR PERMIT

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TORONTO

DESIGNED BY
G.S.

CHECKED BY
E.P.

SCALE
1:50

DATE
FEB. 13

PROJECT NUMBER
1313

DRAWING NUMBER
M-6

OF 43